WHAT IS CLAIMED IS:

1. A method for viewing an abnormality in different kinds of images, said method comprising:

scanning an object using a first imaging system to obtain at least a first image of the object;

determining coordinates of a region of interest (ROI) visible on the first image, wherein the ROI includes the abnormality; and

using the coordinates of the ROI to scan the object with a second imaging system.

2. A method in accordance with Claim 1 wherein determining coordinates of the ROI visible on the first image comprises manually marking the ROI on a display device that displays the first image.

3. A method in accordance with Claim 1 wherein determining coordinates of the ROI visible on the first image comprises automatically marking the ROI by using a computer-aided design (CAD) algorithm.

4. A method in accordance with Claim 1 wherein using the coordinates of the ROI to scan the object with a second imaging system comprises:

instructing a probe mover to move a probe to the co-ordinates to scan a specific region of the object, wherein the specific region is defined by the coordinates; and

scanning the specific region of the object with the second imaging system to obtain at least one second image.

5. A method in accordance with Claim 4 further comprising displaying the first and the second images concurrently to enable a user to view the abnormality.

6. A method in accordance with Claim 1 further comprising registering 2-dimensional (2D) data from which the first image is generated with 3-dimensional (3D) data obtained by scanning the object with the second imaging system.

7. A method in accordance with Claim 6 wherein registering 2D data from which the first image is generated with 3D data comprises:

obtaining at least six equations having at least six unknowns, wherein each equation establishes a relationship between coordinates of 2D data acquired from the first imaging system and coordinates of 3D data acquired from the second imaging system; and

solving the six equations to obtain the six unknowns.

8. A system for viewing an abnormality in different kinds of images, said system comprising:

an X-ray imaging system configured to scan an object to obtain at least one X-ray image of the object; and

a controller configured to:

determine coordinates of a region of interest (ROI) visible on the first image, the ROI including the abnormality; and

utilize the coordinates of the ROI to scan the object with an ultrasound imaging system.

9. A system in accordance with Claim 8 wherein to determine coordinates of the ROI visible on the X-ray image the controller is configured to enable manual marking of the ROI on a display device that displays the first image.

10. A system in accordance with Claim 8 wherein to determine coordinates of the ROI visible on the X-ray image the controller is configured to mark the ROI by using a computer-aided design (CAD) algorithm.

11. A system in accordance with Claim 8 wherein to utilize the coordinates of the ROI to scan the object with the ultrasound imaging system the controller is configured to:

instruct a probe mover to move a probe to the co-ordinates to scan a specific region of the object, wherein the specific region is defined by the coordinates; and

instruct the ultrasound imaging system to scan the specific region of the object to obtain at least one ultrasound image.

12. A method for viewing an abnormality in different kinds of images, said method comprising:

registering 3-dimensional (3D) data relative to 2-dimensional (2D) data, wherein the 3D data is obtained using an imaging system that is different than an imaging system used to obtain the 2D data.

13. A method in accordance with Claim 12 wherein registering 3D data relative to 2D data comprises registering 3D data relative to 2D data without using fiducial marks on a patient having the abnormality.

14. A method in accordance with Claim 12 wherein registering 3D data relative to 2D data comprises registering 3D data acquired using an ultrasound imaging system relative to 2D data acquired using an X-ray imaging system.

15. A method in accordance with Claim 14 further comprising establishing a relationship between the 3D data acquired using the ultrasound imaging system and the 2D data acquired using the X-ray imaging system.

16. A method in accordance with Claim 12 wherein registering 3D data relative to 2D data comprises:

obtaining at least six equations having at least six unknowns, wherein each equation establishes a relationship between coordinates of 2D data acquired from

an X-ray imaging system and coordinates of 3D data acquired from an ultrasound imaging system; and

solving the six equations to obtain the six unknowns.

17. A method in accordance with Claim 16 wherein three of the six equations are $x_1x_1\text{-}q_1 = r_1(c_1x_1u_1 + t_1 - q_1)$, $y_1x_1\text{-}q_2 = r_1(c_2y_1u_1 + t_2 - q_2)$, and $z_1x_1\text{-}q_3 = r_1(c_3z_1u_1 + t_3 - q_3)$, wherein (x_1,y_1,z_1) are coordinates in a first coordinate system of a first datum acquired using the ultrasound imaging system, (x_1u_1,y_1u_1,z_1u_1) are coordinates in a second coordinate system of the first datum, (q_1,q_2,q_3) are coordinates of a center of projection S at which an X-ray source of the X-ray imaging system is positioned to project the first datum on to a plane from the center of projection, r_1, c_3, t_1, t_2, and t_3 are five of the six unknowns, c_1 is a length in an along an X-axis of a pixel of a 2D image generated from data acquired using the ultrasound imaging system, and c_2 is a length in an along a Y-axis of the pixel of the 2D image generated from data acquired using the ultrasound imaging system.

18. A method in accordance with Claim 17 further comprising:

selecting the first datum and its projection on to the plane by:

viewing an extreme point at a boundary of a feature within an X-ray image generated using the X-ray imaging system;

viewing a 2D slice of data obtained using the ultrasound imaging system, wherein the 2D slice is orthogonal to a plane of the X-ray image; and

relocating the 2D slice to visualize the object for a first time in the 2D slice, wherein the extreme point is the projection of the first datum.

19. A method in accordance with Claim 17 wherein the remaining three of the six equations are $x_2x_2\text{-}q_1 = r_2(c_1x_2u_2 + t_1 - q_1)$, $y_2x_2\text{-}q_2 = r_2(c_2y_2u_2 + t_2 - q_2)$, and $z_2x_2\text{-}q_3 = r_2(c_3z_2u_2 + t_3 - q_3)$, wherein (x_2,y_2,z_2) are coordinates in the first coordinate system of a second datum acquired using the ultrasound imaging system,

(x_2u_2,y_2u_2,z_2u_2) are coordinates in the second coordinate system of the second datum, and r_2 is the sixth unknown.

20. A method in accordance with Claim 16 further comprising:

obtaining six additional equations having six additional unknowns, wherein each of the six additional equations establishes a relationship between coordinates of 2D data acquired from the X-ray imaging system and coordinates of 3D data acquired from the ultrasound imaging system;

solving the six additional equations to obtain the six additional unknowns; and

averaging a first unknown of the six unknowns with a corresponding first additional unknown of the six additional unknowns.

21. A method for viewing an abnormality in different kinds of images, said method comprising:

scanning an object using an X-ray imaging system to obtain at least one X-ray image of the object;

determining coordinates of a region of interest (ROI) on the X-ray image, wherein the ROI includes the abnormality;

instructing a probe mover to move a probe to the co-ordinates to scan a specific region of the object, wherein the specific region is defined by the coordinates; and

instructing an ultrasound imaging system to scan the specific region of the object to obtain at least one ultrasound image.

22. A method in accordance with Claim 21 wherein determining coordinates of the ROI on the X-ray image comprises manually marking the ROI on a display device that displays the X-ray image.

23. A method in accordance with Claim 21 wherein determining coordinates of the ROI on the X-ray image comprises automatically marking the ROI by using a computer-aided design (CAD) algorithm.

24. A system for viewing an abnormality in different kinds of images, said system comprising:

an X-ray imaging system configured to scan an object to obtain at least one X-ray image of the object; and

a controller configured to:

determine coordinates of a region of interest (ROI) visible on the X-ray image, the ROI including the abnormality;

utilize the coordinates of the ROI to scan the object with an ultrasound imaging system; and

register 2-dimensional (2D) data from which the X-ray image is generated with 3-dimensional (3D) data obtained by scanning the object with the ultrasound imaging system.

25. A system in accordance with Claim 24 wherein to utilize the coordinates of the ROI to scan the object with the ultrasound imaging system the controller is configured to:

instruct a probe mover to move a probe to the co-ordinates to scan a specific region of the object, wherein the specific region is defined by the coordinates; and

instruct the ultrasound imaging system to scan the specific region of the object to obtain at least one ultrasound image.

26. A system in accordance with Claim 24 wherein to register 2D data from which the X-ray image is generated with 3D data the controller is configured to:

obtain at least six equations having at least six unknowns, wherein each equation establishes a relationship between coordinates of the 2D data acquired from the X-ray imaging system and coordinates of the 3D data acquired from the ultrasound imaging system; and

solve the six equations to obtain the six unknowns.